WHAT IS CLAIMED IS:

1.   A method for processing data through a system for accessing and transmitting different data frames in a digital transmission network, wherein the system includes a user-network interface (UNI), which is used to connect to a user's network, a network-network interface (NNI), which is used to connect to said digital transmission network to transfer data, a mapping/demapping device, a virtual interface device, which couples with the UNI and couples with the NNI via the mapping/demapping device, and a control device, which couples with the virtual interface device to control it to access and transmit the data frames, said method comprising the following steps:

the virtual interface device classifying the data frames; and

the virtual interface device outputting the data frames to corresponding device interfaces.

2.   A method according to claim 1, wherein said control device includes a data processing and dispatching device, which couples with said virtual interface device; at least one of a virtual private device, a virtual bridge device and a RPR device, which couples with said data processing and dispatching device; said method also comprises the step of the virtual bridge device switching the data frames.

3.   A method according to claim 2, further comprising the step of the virtual private device processing the data frames.

4.   A method according to claim 3, wherein the step of the virtual private device processing the data frames comprises the following step: relaying and/or converging and/or deconverging the data frames.

5.   A method according to claim 2, wherein the step of the virtual private device processing the data frames also comprises the following step: the RPR device processing the data frames.

6.   A method according to claim 5, wherein the step of the RPR device processing the data frames comprises the following step: terminating sending and/or relaying and/or beginning to send the data frames.

7.   A method according to claim 3, wherein the step of the RPR device processing the data frames also comprises the following step: the RPR device processing the data frames.

8.   A method according to claim 7, wherein the step of the RPR device processing the data frames comprises the following step: terminating sending and/or relaying and/or beginning to send the data frames.

9.   A method according to claim 1, wherein said control device includes a data processing and dispatching device, which couples with said virtual interface device; at least one of a virtual private device, a virtual bridge device and a RPR device, which couples with said data processing and dispatching device; said method also comprises the step of the virtual private device processing the data frames.

10.   A method according to claim 9, wherein the step of the virtual private device processing the data frames comprises the following step: relaying and/or converging and/or deconverging the data frames.

11.   A method according to claim 1, wherein the step of the virtual private device processing the data frames also comprises the following step: the RPR device processing the data frames.

12.   A method according to claim 11, wherein the step of the RPR device processing the data frames comprises the following step: terminating sending and/or relaying and/or beginning to send the data frames.

13.   A method according to claim 9, wherein the step of the RPR device processing the data frames also comprises the following step: the RPR device processing the data frames.

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14.   A method according to claim 13, wherein the step of the RPR device processing the data frames comprises the following step: terminating sending and/or relaying and/or beginning to send the data frames.